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Agricultural.

BUILDING A SILO IN A BARN.

From Prof. Samuel Johnson, Lansing:

LANSING, Jan. 20, 1890.

To the Editor of the Michigan Farmer.

Your letter correspondent inquires in your last issue, "how he can build the walls in a barn basement intended for use as a silo, so as to make a smooth job in the silo lags on the wall of basement."

The wall should be built, so that when finished with a good smooth coat of cement, it will extend a plumb two inches wider than the inside of the silo. The first sheathing of inch boards will then be put on horizontally, this covered with tared paper, and then a second sheathing of inch boards placed on perpendicularly. This will bring the inside lining of boards even with the cemented wall of the basement. Care should be taken to have this wall straight and smooth. I believe a good proportion of the losses in silos occur from a lack of attention to this particular. Slight depressions or inequalities in the walls forbid the proper packing and setting of the silage, leaving the spaces to be filled with air, the agent that produces waste. If your correspondent should think of bathing and plastering his board walls it will need to make further allowance. With the dressing of coal tar commonly used and which has proved quite satisfactory the allowance of two inches will be correct.

SAMUEL JOHNSON.

From a Kalamazoo County Correspondent.

GALESBURG, Jan. 20, 1890.

To the Editor of the Michigan Farmer.

"Green Farmer" asks "how to build a silo in the barn bay." Having had some experience in building silos I will tell him how I would build it. In the first place, he is going to raise the barn up and put a basement under it, he should have the wall around the silo part faced on the inside even with the silo. Use 2x4 studding; on the sides next the barn frame set 16 inches apart and run them down by the wall to the bottom, so as not to have any of the ensilage against the stone wall, for it will surely spoil, unless it is cemented and at more expense than boarding. On the other sides use 2x6 or 1x12 inch studding same distance apart; use common lumber for lining, dressed on one side; put on one thickness horizontal, then put on one thickness of tared paper, lapping the edges well, and put on second thickness of boards.

I presume he wants to feed the silage in the basement, if so, where he wants the door from the silo leave out one of the studs and double the two end studs, so as to make a jamb for the door; board across this space two or three times so that it can't spread, and use common boards for door by cutting the right length and putting it as the silo is filled, using them double with paper between. Be sure that the small studs are well supported by the barn frame so that there is no spreading.

Have a 4x4 sawed in corner-wise so as to make two three-cornered pieces and fasten in the corners so as to make them tight. Fill in the bottom of silo with a few loads of clay and pound it down smooth, leaving it high at the edges. And in all the work remember that it must be air-tight on sides and bottom or it will be a failure.

Before commencing to build send 10¢ to W. H. Morrison, Madison, Wis., and get the last "Institute Bulletin for Wisconsin," and send \$1.00 to "Green Farmer," Fort Atkinson, Wisconsin, for one year's subscription and you will get information that will save you money. If the editor thinks the last is too much free advertising he can cut it off and send it to "Green Farmer" privately.

F. O. CROSSFIELD.

[The editor of the FARMER is never jealous enough of a contemporary to refuse in-

formation which will benefit it as well as our own subscribers. We always prefer saying a good word for a man or a paper rather than a bad one when we can consistently do so. We publish the item referred to by our correspondent with pleasure.—ED. FARMER.]

An Actual Experience with a Barn Silo.

BIRD LAKE FARM, JEFFERSON, ILLINOIS, Jan. 13, 1890.

To the Editor of the Michigan Farmer.

I saw an account of a silo in the issue of Dec. 21st, 1889, from A. B. Maynard, of Romeo, which in cost I beat. Mine cost less and I think answers every purpose. Silo 15x27 feet, inside measure, built in one corner of the barn; wall one foot high, two inch plank for sill 16 inches wide; barn resting on the wall keeps the plank in place; 2x8 studding, 18 feet long, sheeted with hemlock roofing, then tarred paper, then matched hemlock.

Did not paint, as I did not get it done in time; sandy soil bottom; no waste to the silage, though some is mouldy and some appears rotten, but the stock will eat it all in preference to the best hay I have got, and my hay is good as it was cut early; though I may have kicked the goodness out of it with my toddler, as some say.

Had 13 acres corn; think it would husk 100 bushels of ears; filled silo 13 feet deep; seven days in filling. Corn planted in drills. Shall plant in hills this year. Drove the team near the standing corn, cut the rows, and put it on the wagon as it was cut; two men to a team kept the team moving most of the time. Used a Silver & Denning cutter, No. 16, 18 feet carrier; cutter set on the barn floor nine feet above bottom of silo.

Corn all put in the silo after the frost of September 21st. Corn leaves got very dry, and made bad handling part of the time. Cost about fifty dollars to put the 13 acres in the silo. Could reduce the expense at least one-third another time. Put in about twenty tons of crushed cane from the cane mill; cows eat most of it with that is not mouldy, but don't eat it with a relish that does the corn. The ensilage is moulded about a foot on top. I feed from an incisor, and use the mouldy cane for bedding; it answers every purpose for weight and cover. Should use marsh grass for cover and weight, as it would make good bedding if I had not got the refuse cane.

I should be happy to have anyone interested come and make a personal inspection. E. Z. NICHOLS.

FROM THE NORTH.

EAST JORDAN, Mich., Jan. 17, 1890.

To the Editor of the Michigan Farmer.

The FARMER is so crowded with good things of so much practical value to farmers that it embarrasses one who thinks of contributing anything lest his contribution, if accepted, should crowd out better matter. I will venture to offer something as to matters in this section.

There is much fine fruit raised in Charlevoix county, but the crop was very light in 1889, as it was nearly all killed by late spring frosts. Both winter and spring wheat do well, but the spring wheat is largely sown late in the fall. Peas are sure to yield a fair, and likely to produce an extra crop. The Pine Lake region is noted for the production of the finest quality of potatoes. They sell readily in Chicago and Milwaukee at a price in advance of any raised elsewhere. Two hundred bushels per acre is about the usual yield, and they seem to do about equally well on clay or sandy soils, and on new or sod lands. Corn is however the principal crop with a few of the larger and better farmers, and when it is given proper cultivation, on average quality of soil produces over 100 bushels of ears to the acre.

Mrs. Wilber Dewey, of the Concord Club, read a short essay, hurriedly prepared to fill a vacancy in the programme through absence, and did it very nicely. Then Miss Lenore Kinney, of the Concord Club, read a paper entitled "Possibilities within the reach of American Girls," in which she referred to the great difference between the girls of the past and those of the present, and showed the progress made by our girls from the time of our grandmothers to the present time.

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THE CONCORD FARMERS' INSTITUTE.

This was an institute to include the farmers' clubs of Jackson County, and many of them were well represented. It opened on Wednesday, January 15, at noon, and closed Thursday evening. We never attended an institute where the audiences were larger, or showed more interest in the work of the various sessions. Discussions were free and interesting, and the whole affair was most creditably managed. Mr. Bigelow, President of the Concord Club, occupied the chair very acceptably. Mr. George V. Kinney acted as Secretary, and Mr. Frank McKenzie, publisher of the Concord Independent, as reporter. To his good offices we are indebted for assistance in that direction. A large choir, well managed, was one of the factors in making the meeting a success. The meeting was held in the opera house, and on Thursday a spread was given by the ladies of the Concord Club.

After the meeting had been called to order, Secretary Kinney made a short address welcoming those present on behalf of the Concord Club, and giving a history of its organization and present condition which is very flattering to its members.

Mrs. Parsons had been in many different kinds of business as a mechanic and merchant, and as far as long hours was concerned the merchant and mechanic worked the longest hours; he thought if a man had a farm here in Michigan he need not look farther.

Thursday morning Mr. Wm. T. Raven, of the Columbia Club, and a practical dairyman, read a paper on dairying, which we print in full:

Mr. President, Ladies and Gentlemen:—It may be safely said that dairymen belong to the advanced class of the people. They are of course no longer content to farm just the same line of farming as their fathers, when conditions are changed, soils are exhausted and profits are nearly gone. Clearing our farms of their heavy growth of timber was the work of the fathers. As we go on, we find that it is being done in a more scientific manner.

It is the history of our country that the first crop grown by man was wheat or corn. So we have come to the conclusion that wheat is the greater crop of the two.

That is why dairying is conducted in Jackson Co.; as far as I know, with the exception of Concord and Columbian.

Concord has 164 farms, containing an average 120 acres each, and keep, to furnish them with butter and cheese, and to supply pocket money for the husband.

That is the greater crop of the two.

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Jan. 25, 1890.

The Horse.

ABDALLAH 15 (ALEXANDER'S.)

In a letter to the *Livestock Indicator*, of Kansas City, Mr. W. E. Bean, of Mt. Sterling, Ky., gives a very interesting history of this horse, one of the most noted trotting sires ever bred, when his opportunities in the stud and early death are considered.

The was the sire of Goldsmith Maid, 2:41, and five others in the list, and is the sire of 13 horses which have produced 95 trotters. He was sired by Hambletonian 10, dam Katy Darling by R-man, a horse of unknown breeding. Mr. Bean's history of him is as follows:

Since this horse is of national reputation, conceded by all as the best breeding son of Hambletonian, a few facts hitherto unpublished will be of interest.

January, 1859. Mr. James Miller, then well known as a breeder of trotters, accompanied by Joel F. Love, went to New York to buy a trotting stallion. They went direct to Goshen, Orange county, and stopped at the hotel of John Edsall, then owner of Abdallah (15). The horse was then seven years old. On first sight both men, especially Mr. Miller, were pleased, for Abdallah looked every inch the king he was. They tried to get a price, but were told that the horse was not for sale. Mr. Edsall had also a lively stable and was wintering a great many horses owned in New York. He furnished the gentlemen from Kentucky all the stallions of note in the country. On their return he was again asked to price Abdallah, but refused.

As they were starting the second time on a more extended tour, Mr. Miller said: "I noticed that the best mares here are by your horse's side, since you cannot cross him with his sisters, would it not be well to sell him and buy a horse you can?" This speech was the means of bringing Abdallah to Kentucky. After two weeks spent in vain search for something to suit Miller and Love gave up the hunt and turned their faces homeward.

Miller said: "Let us go by Goshen and try again to buy Edsall's horse." Love answered: "It is of no use, we will not sell." Miller insisted and Love finally consented. Edsall was glad to see them and asked: "What luck?" "The same as before, we have looked this country over and found nothing to suit but your horse, and we are going home without buying," Edsall said.

"This will never do; the idea of coming all the way from Kentucky and getting nothing is too bad. While you were away I have been thinking of what you said to me about not being able to breed to the best mares here, and have decided to sell the best mare."

"For whom at what price is it worth?" "I will buy him," \$2,500 my price." "We will take the horse. We want you to blanket him and get him in shape, and bring him yourself by the middle of March to Kentucky." This Edsall agreed to do and fulfilled his contract, spending several weeks in the blue grass country. Abdallah stood that season (1859) and three others at Chillicothe.

In August of 1862 Messrs. Miller & Love, fearing that he would be taken by soldiers, took him to "Woodburn," thinking that there he would be safe, as Lord R. A. Alexander was a citizen of Great Britain.

In the fall of 1862 Mr. Alexander gave in exchange for him, \$2,500 in money and a son of Edwin Forrest and Flora Temple.

His subsequent history is well known. He was stolen by soldiers, overheated by excessive riding, made to swim a river, being allowed to cool suddenly, and chilled to death.

Like the mothers of most great horses, his dam, "Katy Darling" was more than an ordinary mare. This much is now known. She was a good road mare of her day. In 1850, while being driven across a railroad track, she caught her foot and broke her ankle. Her owner was about to kill her, when a gentleman well acquainted with her great excellence, begged for her life, saying that there were plenty worthy men who would be glad to get her, and that he would see that she fell into good hands. Her ankle got well, but was always crooked. She was bred to Hambletonian. There was a race trotted on the ice for a new set of fine harness. The owner of "Katy Darling" rode, while Abdallah was in the lead.

There was lacking one entry to fill, and her owner proposed trotting her, if she would allow her to start under saddle. She won the race with the greatest ease.

Mr. Miller says that Abdallah in motion was one of the grandest looking horses he has ever seen, and that his record of 2:42 is no measure of his speed even for those days when 2:42 was equal to 2:30 or better at the present time.

Proper Care of Carriages.

There is no varnish made that will hold its brilliancy more than six months. A carriage should be revarnished every six months to keep it exactly in line order. If revarnished once a year, it will preserve the underneath from damage. But there are circumstances that render revarnishing necessary at more frequent intervals. If one has not a suitable carriage house separate from the stable, the ammonia from the stalls or the manure pile, or perhaps from decaying vegetables, has united with the oil in the varnish and gradually dissolved it or burnt it. We have known it done in one night, so that the whole surface exposed to the ammonia was shriveled up in small brown crisp rolls. We knew a case where a gentleman left his horse and buggy standing in front of a distillery for half an hour, and when he returned one side of his buggy was completely covered with what looked like rust, but which was simply the remains of the decayed varnish. The oil had been consumed, leaving only the gun crumbled up in burnt, crisp flakes. Some people do not take the pains to wash the mud from a carriage soon enough after using, but permit it to dry, when the mud acts like a sponge and absorbs the oil from the varnish. Some people wash the carriage with soap, and we have even known hot water used. For such acts of stupidity there are no words to express disgust. Some people seem to regard varnish as a kind of high polish, put on by hard rubbing, and the more rubbing it gets the brighter it ought to look. The number of people who are absolutely ignorant about varnish is something astonishing.—*The Stable.*

Horse Gossip.

Have you seen the 5-A five-mile horse? If not why not? If you have a horse you need it.

The Turf Congress, of the National Trotting Association, will meet at the Iroquois Hotel, Buffalo, on Wednesday, February 12.

The Marion News reports that A. E. Williams, of Alanson, Ingham Co., has sold his Greenbacks, filly, dam by Trophy, to H. M. Williams, of Mason, for \$300.

R. G. STONE, Paris, Ky., has sold to S. A.

Browne & Co., Kalamazoo, a yearling bay filly by Baron Wilkes, dam Stintette, by Steinway, for a reported price of \$4,000.

D. W. GROW, of Bay City, has purchased from James Corrigan, Cleveland, Ohio, the stallion Douglas Harold, four years old, by Harold, dam Lady Douglas by Stephen A. Douglass.

S. A. BROWNE & CO., of Kalamazoo, have purchased S. Osborne, of Cambria, Hillsdale County, a weanling filly by Ambassador, dam May Hastings, by W. H. Vanderbilt, Price, \$500.

M. C. E. LYLE, of Dowagiac, Cass Co., has purchased from James French, of Andover, Ohio, the brown horse Metropolis 2:82, nine years old, by New York, dam Frosty May by Joe Downing, her dam Lady Tennis by Mambrino Patchen.

WESTERN Sportsman—A new trotting association under the name of Bay View Driving Park Association has been organized at Erie, Monroe County, Mich., with C. W. Rowe as President. The association is composed of live, energetic men, and we hope and believe it will be a success.

TAX Jackson Patriot says that Mr. F. M. Thornton, of the firm of J. C. Thornton & Sons, Fairview, Pa., has purchased of Dr. W. A. Gibson the handsome two-year-old stallion Whistler, by Tremont, dam by George Wilkes, paying therefore \$1,200. Whistler is a brother to Belle Rene, 2:26½, and is considered a youngster of great promise.

The Jackson Citizen says that Dr. Gibson, owner of Tremont and Olmedo Wilkes, has sold to R. L. Dutton, Cato, N. Y., the bay colt Carlton, six months. The colt was sired by Olmedo Wilkes, first dam Rhoda, by Tremont; second dam Music in the Air, record 3:26, by Sweepstakes; third dam Post's Hambletonian and fourth by Roeback. The price paid was \$500.

W. E. DAVIS, of Chicago, has deposited \$500 with the Breeder and Sportsman, of San Francisco, as a forfeit for a match between his pacer Roy Wilkes and the pacer Adonis for \$2,000 a side, the winner to get the gate receipts also. The match must come off before February 15, as after that date Wilkes goes into the stud. Davis is willing to have the match come off on any track within 100 miles of San Francisco.

Mr. C. A. HORSES, of Battle Creek, this State, reports the sale of the following animals:

To Dean Sage, Albany, N. Y., the gray filly Giordano, (sister of Gertrude 2:28½), by Pilot Medium, dam by Golden Dawn, cut out by Bay Middleton. To Weistein & Williams, Battle Creek, a black gelding, 2:26½, by N. D. Deneen, dam Thesis by Haw Patch, her dam Thysa by Masterpiece. To A. Match, of Minneapolis, Minn., the black colt Thorntor, two years old, by Pilot Medium, dam Belle of Jefferson by Belmont; and the bay filly Alice Dawn, two years old, by Pilot Medium, dam by Golden Dawn.

To show how well Mr. Z. E. Simmons, formerly one of the owners of George Wilkes, thinks of Anteet, it may be said that last evening, at the Hotel Woodstock, 2:26½, Eva 2:28½, by George Wilkes, and four other daughters of the same horse.—*Advertiser*.

And Anteet is full of running foolishness. What can a practical horse breeder like Mr. Simmons be thinking of? And here is A. Browne, selling Bell Boy and purchasing Anteet to take his place. Was it the thoroughbred blood in the latter which induced Mr. Browne to put him at the head of his stable? It looks very much that way.

The Galbraith Bros., of Janesville, Wis., send us a copy of their catalogue for 1890, containing pedigree of the Clydesdale, English Shire, Suffolk Punch, Hackney and Cleveland Bay horses imported and owned by them. To any of our readers who are thinking of purchasing animals of the breeds named this catalogue will be found very useful. The Messrs. Galbraith have established a reputation for the quality of the horses they import, and of those which have come into Michigan from their stables, we have reason to know that they have given entire satisfaction.

COLDWATER Republican.—A. C. Fisk has decided to put some young blood into his breeding establishment, and consequently has purchased of R. P. Hart, Lapeer, Mich., the six-year-old bay stallion Corbeau, Medium, 4999. Corbeau is by Happy Medium, son of Rydick's Hambletonian 10, full sister to Billy Boile (pacer) 2:14½; second dam, McGinnies mare, by Tom Hale, the dam of Ross Standish, 2:29, and Billy Boile. Corbeau has two white feet; behind and a strip on nose. This is the only Medium stallion in this country, to our knowledge, and Mr. Fisk is to be congratulated on securing this valuable horse. The price is private, but it is said to be a large one. Mr. Fisk also purchased of Mr. Hemlinay, of Lapeer, a two-year-old black filly by Corbeau Medium, dam by Mambrino Foster, he by Kerr's Mambrino Patchen, which is a likely looking filly.

WHILE the National Trotting Association seems to be in a very healthy condition; the American Association now reports membership of 417, a gain of 99 the past year. Perhaps, on the whole, it is a good thing to have these two associations, as one acts as a check on the other and prevents an arbitrary use of its power. If they would not in harmony in bringing about a more healthy and honest management of the various tracks under their control, it would add greatly to the value of the American trotting horse, while securing a much better class of citizens as patrons of their meetings. We have too many Spains and Hocks and McCarthys connected with the track, and their presence is always regarded with suspicion by the general public. An outsider, one not in the ring, no matter how good his horse may be, is generally regarded as fair game by these gentry, and they generally clean him out of his money and reputation before he is aware of it. There is much room for reform in track management.

SAYS the St. Louis Journal of Agriculture: "There is a big difference between \$90.75 per head net profit on steers and the same amount or less gross receipts per head. Yet that is the amount of clear profit made by R. B. Hudson & Son, of Carrollton, Mo., on a lot of 13 two-year-old grade Angus steers they lately shipped to Chicago. These steers averaged 1,750 pounds and sold at \$6.10 per hundred. They brought \$106.75 each, and as the cost of raising them was figured at \$97 each, it left a clear profit of \$39.75. Go and do likewise." Those are the kind of steers to raise, and any of the improved breeds will produce them, if helped by good care and generous feeding.

BEECHAM'S PILLS act like magic on a weak stomach.

The Farm.

Breaking a Heifer to Milk.

One of the perplexing jobs often to be done on a farm, is the inducing young heifers to submit quietly to the operation of milking. Large three-year-old heifers (and heifers ought not to become mothers before they are three years of age), often quite wild and nervous, are not always easily quieted, and often very unwilling to submit to this necessary operation. Various plans are resorted to, some successfully, and others not. Your correspondent's plan is as follows: Put the heifer into the cow stable; secure her head by stanchions or a rope to a post; slip an iron ring on to a leather surcingle and buckle it around the brisket just back of the fore legs. Then with a short strap (long enough to reach around the leg and buckle), slip on to this strap a common harness snap and buckle it around the fore leg just above the hoof; raise the foot and snap into the ring of the surcingle. The cow thus standing on only three feet, will readily stand to be milked. A few times will accustom her to the operation, and the fixings can then be left off. It is quickly put on, and quickly taken off, and the heifer soon becomes quiet and gentle.

CONCORD, Mich. N. T.

The Depleted Potato, and Suggestions for its Complete Restoration.

The potato plant at the east is not the fine bloom it used to be; the seed balls are here known only in name. This fact alone— even if there were no other indications— would show that the potato of to-day does not possess the vigor it had fifteen or twenty years ago, and that, altogether, it is not a perfect plant any more. At the same time it has lost much of its former productivity in tuber, thus disappointing the expectation that the energies of the plant saved in other ways would all be directed upon tuber formation. Add to this its increased susceptibility to blight, and you will hardly dare deny that the health and vigor of the plant has become terribly impaired in recent years. What influences have brought this result, and what can we do to counteract the tendency? It is not unlikely that a small share of the responsibility rests upon insects and upon the scurings of the barnyard, containing a large quantity of liquids and, therefore, quite rich in nitrogen, were broadcast in the fall of '88. By this means all the soluble matter is washed into the soil, and the coarse matter keeps the ground open when plowed in. This land had been under an intelligent and not exhaustive rotation of crops for seventeen years, and now Mr. Jacobs truly says, that less manure would have been better, developing more grain and less straw, although the crop of seventy-six bushels was by no means a poor one. Evidently the clay soil retained the elements of the liquid manure, and the nitrogen thus supplied went mostly to straw.

Fertilizers of one kind or another were frequently employed, either alone or in conjunction with stable manure. Their use alone on land well manured last year, or earlier, was popular. Thus the third-prize crop (John Miller, York Co., Ontario, 96 bushels) was on land that had been in grass from 1880 to '85, in peat that year, followed by wheat and barley—all without manure; but it was heavily dressed in the fall of '87 with manure, plowed under, and again in the spring of '88, yielding 600 bushels of turnips that year. Last season, the only plant-food supplied was 240 pounds of superphosphate (containing 12 per cent total phosphoric acid, and two cent each of potash and ammonia), sown by hand and harrowed in just before seeding, followed by 140 pounds of nitrate of soda, strewn broadcast on June 1st, when the crop was well up. The old salt-and-ashes formula—salt, one bushel, ashes, three bushels, per acre, produced nearly 67 bushels in Tompkins Co., N. Y., and suggests what a yield might have been had on a liberal dressing of superphosphate and potash. Mr. Stebbins' yield of 2,322 lbs. of oats in Kalamazoo Co., Mich., was on land dressed with 200 pounds of bone fertilizer (nitrogen, five to six per cent; available phosphoric acid, six to eight per cent; potash, six to eight per cent) May 23rd, when the oats were well up, and again with a similar quantity ten days later. In 1887, a similar dressing was not applied since 1885, but a larger clover growth was turned down in the fall of '88. At the first application of fertilizer a mulch of straw was put on to retain moisture, it being very dry. This crop was very rank and lodged badly, possibly owing to the comparatively large amount of nitrogen in the fertilizer.

IF the murderous practice of close-cutting is continued year after year, what other results could a sensible person expect than a gradual dwarfing of the plant, with gradual failing off in yield? Is it not a necessary consequence, and entirely in harmony with Nature's laws? No matter what plan we may adopt in potato growing for market or the table, when it comes to seed stock, we will have to make effort to reinforce into it all the vigor and health of former days. With this aim, we should begin by raising and selecting strong seedlings, and in their propagation observe the teachings of Nature. The thriftest, most vigorous and most productive plants we will be apt to find are those that start up when a whole potato was left in the ground at digging time the fall before. Firmly packed in damp soil during winter, not even outside the reach of frost, but untouched by the murderous knife, it sends forth stalks in early spring compared with which the codded plants in the field are mere dwarfs. To sum up: Frequent renewal by new seed; continued use of sound, whole tubers in planting; good cultivation; careful protection from injury by insects or caustic applications—this is a combination that will hardly fail to give a pedigree stock of seed tubers on which we can safely rely for old-time vigor and old-time crops. I note with natural satisfaction that many of our best growers now favor a return to the old practice of planting medium sized tubers, and refrain from using the knife; and I think I may well claim a share of responsibility for this turn of popular sentiment. I have not kept this matter before the agricultural public so long a time as to have it forgotten.

THE Early Rose Potatoes.

This is an interesting bit of history to know regarding this once famed potato, and which is even now grown in some localities. Rev. Charles E. Goodrich, being interested

in propagating new varieties, originated the Garner Chili, one of which fell into the hands of a Mr. Brazeau, of Vermont, who planted a seed-ball, and among the products the potato was found that was named by Rev. D. S. Helfner, who was struck with its merits, the Early Rose. Mr. Helfner obtained the originator all the seed of the variety that he had, which he propagated until in 1867-8 he had obtained 350 bushels.

At this time the sale commenced. One party having secured three top cuttings, propagated these until at the end of three months 350 cuttings had been sold for \$90. After sales had been made at large figures, Messrs. Conover Brothers purchased the balance, 154 bushels, for the snug little sum of \$10,000 or about \$65 per bushel. The potato, we believe, had the most remarkable taste of any of whose history we have any authentic record.—*Germantown Telegraph*.

Agricultural Items.

THE best season of the year to cut brush is when the frost is in the ground and no snow on it.

TIMOTHY hay, says a correspondent of the N. Y. Tribune, should not be given very young lambs. Its constituting tendency is detrimental to their growth.

PROF. L. H. ADAMS, of the Wisconsin Experiment Farm, says that results at the experiment station do not indicate that any benefit was derived from salting hay. It

might make the hay more palatable, but would not add to its keeping qualities.

T. GRINGER, in the N. Y. Tribune, says there is no doubt the potato is deteriorating, and ascribes the cause partly to the mutilation of this grain on naturally wet and undrained lands, with poor average results. The necessity of proper drainage for oat fields receives marked emphasis in the American Agriculturist competition.

Whenever a clover or alfalfa sod was plowed down, either last year or in 1887, oats did well. A rotation with clover seems to be quite as useful with oats as with wheat. Stable manure was broadcast and plowed under, four to six inches deep, in a number of cases, with good results, but the best average product, where stable manure was used alone, is on fields where the manure applied was quite fine and well harrowed in. This seems to be well justified by the theory and practice of many of our best farmers, who hold that, although oats are a gross feeder, it grows so rapidly that it feeds the best advantage, finely divided manure, well distributed through the surface soil, is far better than coarse stuff plowed down six inches. Another important point is the conclusive evidence that oats can easily be over-manured. The first prize-winner largely owes his great yield to the fact that the soil was abundantly stored with plant-food, applied the previous year, or earlier, so that it may be said to have become thoroughly digested, and was in condition to be assimilated by the plant to the best effect, going more to berry than to straw. This was not quite the system on which the second largest crop, of over 100 bushels, was grown. It was on a strong Pennsylvania clay loam, well manured in 1885, and sown with wheat and clover; hay was cut in 1886-87, but the heavy second growth of clover was plowed under that fall, and planted to corn in the spring of '88, which was quite fine with no manure. Last spring 42 common-sized loads of manure (about one-third from fattening cattle and two-thirds by well-trained work horses), that had been forked over until very fine, were plowed to a depth of six inches. But this store of well prepared food below was wisely supplemented by drilling in with the seed 400 pounds per acre of a standard superphosphate, thus affording the young plants soluble food until they could reach the manure below. In another case (Samuel Jacobs, Simcoe Co., Ontario,) green cow manure and the scurings of the barnyard, containing a large quantity of liquids and, therefore, quite rich in nitrogen, were broadcast in the fall of '88. By this means all the soluble matter is washed into the soil, and the coarse matter keeps the ground open when plowed in. This land had been under an intelligent and not exhaustive rotation of crops for seventeen years, and now Mr. Jacobs truly says, that less manure would have been better, developing more grain and less straw, although the crop of seventy-six bushels was by no means a poor one. Evidently the clay soil retained the elements of the liquid manure, and the nitrogen thus supplied went mostly to straw.

W. H. MORRISON, superintendent of Farmers' Institutes in Wisconsin, says: "I am more and more convinced that the most practical and successful method of

Horticultural.**HARDINESS OF THE BARNARD PEACH.**

To the Editor of the Michigan Farmer.

I notice a short article in last week's *Farmer* over the signature of C. Engle. Fearing some may be misled I feel prompted to reply. I cannot, with Mr. Engle's experience in fruit-growing, believe he means to convey the idea that the Crawfords are more hardy than the Barnard, and yet, such is the inference from his article. The main reason for answering his article is this. A large majority of people who have no experience in peach-growing, if they think of planting peach trees, and you ask what varieties they will say, "Crawfords, I think."

But how is it on the lake shore, in the great peach belt where they have had years of experience? Not one man in ten will plant either of the Crawfords largely if the trees were given him, for the reason they are not hardy or reliable.

For illustration, take the past ten years. In that time there have been but two full crops of Crawfords, and they were following mild open winters. On the other hand there have been eight full crops of such hardy peaches as the following: Barnard, Snow's Orange, Jacques, Hill's Chilli and Golden Drop.

Now from observation, to my mind it is readily solved why we had Crawfords last year, and but few of some of the harder sorts. It was a mild winter up to the 20th of February, so much so that buds of some varieties were swollen to nearly double the size they should be at that season.

A close observer would see the same difference, in different varieties, that he would in the appearance of the Northern Spy and Baldwin apple when coming into leaf in the spring. One will quite green before the other shows a leaf at all. To illustrate: In the peach orchard last season a row of Alexander and Louise stood side by side. The former bore no fruit while the latter was very heavily loaded. Now I think no fruit man will claim the Louise more hardy than the Alexander in a severe cold winter, but it will be found the fruit buds of the Alexander were much more swollen therefore I contend it was the warm weather instead of the cold that did the damage last winter; for, as Mr. Engle says, the mercury only went 8° below zero, and that was the night of the 23rd of February.

All fruit men know that would not in the least injure such hardy varieties as the Barnard, etc., in a cold winter when the buds were dormant. We are having a repetition of last winter, only more so. Some varieties, on sandy soil especially, are considerably swollen, as if we get very low temperature much damage must be expected.

SOUTH HAVEN POMOLOGICAL SOCIETY.

The regular meeting of the Pomological Society was held at the rooms under the bank, Jan. 6th. The topic for discussion was, "What fertilizers shall we use?"

J. G. Ramsell opened the discussion by saying: I think no one here will dispute the assertion that we need all the light we can get on this subject, and I for one do not feel able to give scientific advice, but from my investigations on the subject feel sure that we can improve very much the quality of the fruit by the application of fertilizers and keeping our orchards in proper condition. The old orchards and young tree coming into bearing in California are anything but what the disengaged owners wanted or ordered. By the propagation upon him of a fraud of some kind, he has spent hundreds and perhaps thousands of dollars and unlimited hopes upon an orchard that is, wholly or in part, worthless for the intended purposes. Such frauds come about in several ways; sometimes the nurseryman, intentionally or otherwise, neglects to knock out the budded or grafted stumps that do not take. Suckers come up and grow in the place of buds or grafts. The trees are all counted in, and should it be a bad stand, the purchasing orchardist suffers no inconsiderable loss. Again, inexperienced workmen are employed to lift the trees and the varieties become mixed or wrongly labeled. This could be remedied by skillful separation; but, in the hurry of business it is allowed to go. Trees may also become mixed in the trenches by the careless displacing of labels. All of these mistakes can be avoided by proper system and care and the employment of skilled labor. The first cost of a tree is a small item to its subsequent cost and value. One should not hesitate on account of a shade higher price to secure from reliable firms stock which is guaranteed to be true to name. We have but little sympathy for the army of weak-kneed who are periodically swindled by itinerant tree peddlers. These generally pay their nefarious business impossibilities, for which they ask fabulous prices. Their glowing descriptions should be interpreted as follows: "You are one of the favored suckers who have been foolish enough to enrich me by purchasing remarkably worthless novelties, with a large stock of exasperating experience thrown in." This class of buyers are always blaming their luck, but never fail to bite at every bait. Of course, there are honest tree agents representing reliable nurseries, but of this you should assure yourself before listening to their often times misleading eloquence. A nurseryman selling you trees, direct or through an agent, that are not true to name, thereby causing you pecuniary loss and disappointment, should be made liable for resulting damages; but, as the law now stands, the surest means of protecting yourself is to require a written guarantee that the trees are correctly named.—*California Fruit-Grower.*

Raising Pears for Market.

N. Oliver read a paper on pear culture before the Ohio State Horticultural Society, in which he said, according to the *Ohio Farmer*.

I have been growing pears for market for the last thirty-one years. I went into it confidently, believing that pears could be grown with profit and I was not disappointed. Of the 7,000 fruit trees planted on my farm at various times from 1888 to about 1875, 4,000 of them were pears. At first planting I had no experience in the business and made a number of mistakes, principally by the advice of reputable gentlemen in the nursery business. Two of the most serious mistakes were in planting too many varieties and the planting of them too close. The gentleman whose advice I followed had trees to sell; he wanted to sell all he could and he succeeded. This was of my first planting. In time I learned better and planted but few varieties of such as were good for marketing and shipping, and gave them more room to grow. My first planting was of thirty varieties and were planted 15 feet apart, standards at that. My subsequent plantings were of Bartlett, Lawrence, Flemish Beauty and Louise Bonne as standards, and Duchesses. Standards were planted 30 feet apart, and dwarfs 10 feet. In time I learned that the dwarfs were too close, and cut out every other row one way, after which I had immense crops of Duchesses, yearly. It was thought by many, when I planted 4,000 pear trees, that I had planted too many and would regret it. That time has not come yet. Of all the tree fruits I have ever planted none have paid me so well on the average, as the pears, and were I a younger man, with my knowledge of pears and pear culture, I should glad to hear from any one who has used it.

Pear Mackay read a letter from Joseph Lester, of Chicago, who has a bone fertilizer which he sells at \$20 per ton, and which he foolishly guarantees to prevent yellow and give a crop every year if properly applied.

J. Lunnin—I have no faith in salt as a fertilizer. Prof. Kedzie says there is no fertilizing property in it and many of us have used it with no effect except to always moisten in a dry season. In regard to the fertilized salt there are other ingredients mixed with it that may be of value. We want practical work and a fertilizer that will come within our means. Fruit men are anxious to try all new things that they think are good, and are often taken in. Practical growers in the east tell us the best time to apply barnyard manure is when it is fresh in the fall. This is the best we now have. If a tree makes a great growth it does not need fertilizing. If it makes a short, stunted growth, it should be fertilized.

T. A. B. H. —I do not think much of salt alone. I like a strong manure. I sent and got some of the refuse salt from the hide houses in Chicago, at 50¢ per barrel. This was of some use; but I think the best way to fertilize is with clover sown with oats or rye. It is the cheapest and best. We should have an analysis made of the orchard to see what element is lacking and apply that element alone. I have sown phosphates on land that showed grand results for three years. I also sown some wet and spoiled bran and saw a vast difference in the rye when it was sown.

T. C. Bryant—Another good fertilizer which has been used in gardens with good results is hog's blood, dried and ground.

Ashes have but little effect on strong clay soils, but on light sandy soils are very effective.

C. H. Wigglesworth—We have mostly used the green manure on our orchards. I think clover the best you can get on peach trees for the first four or five years, then you need something stronger as the trees begin to bear; besides the grass forms a harbor for curculio as we always find most on the side next a meadow or grass. And clover, to get the good of it, should grow two seasons. We have used the salt from hides, and aside from the blood and other things mixed with it is of little use. We put six tons of ashes to the acre but could see but little good in three years. We must have some fertilizer for our older trees and I think good barnyard manure fills the bill; but we cannot get enough of it.

O. S. Bush—Dr. Brunson, of Ganges, has been using muck with very good results. He has bought twenty acres of swamp and has the muck hauled in the winter and he says there is nothing so good for peach trees. At Saugatuck they are getting manure from the Chicago stock yards by scows crossing the lake. I do not know what it costs.

Clark Sheffer—I believe in experimenting. That is the way to get at a knowledge of things. I have no faith in salt or ashes. I could never see any good effect from them, but good barnyard manure is all right. It is the best we have. Rye is not first-class, and I cannot see much good effect from plowing it under. Underdraining I think is a great help and drilling in phosphates or bone dust will do well. Clover, too, we can get it, is a good thing, but I find curculio thicker all along the meadow; they harbor in the grass. I think if we take as good care of our apple orchards as the high farmers do of their stock it would pay better—as well as peaches.

A. G. Guley—This fertilized salt has a marked effect on potatoes, corn and small fruits. Mr. Gibson, south of town, has been using the Homestead fertilizer on his rye and he speaks very highly of it. Our State laws require an analysis of the common fertilizer and you get what you pay for. Then you should inquire what element you require on your land and get it. In regard to clover, it is difficult to get a good stand of clover on sandy lands, and it is a question if we can keep up the fertility of the soil by green manure.

Topic for next Monday meeting—Can the use of the silo be made beneficial to fruit-growers. W. H. PAYNE, Sec.

Tomato Plants in Pots

A correspondent of the *Horticultural Times* who grows tomatoes quite extensively for an early and late market, thinks that to get a plant (tomato) to set the fruit well it must be hardened in its fibro. To do this confine its roots in a cylinder, pot or by kindness means, and transplant it to a larger pot or a section of the same.

He has grown plants in pots and kept them bearing 14 months. This also enables one amount of liquid manure to be given to perfect the fruit, while, as the root growth cannot be materially extended, the bloom will still continue to set.

A correspondent writes us concerning the above, clipped from our "Horticultural Items," asking if it means that the tomato plants are set in the ground in pots.

The item refers more particularly to the culture of the tomato under glass for early and late markets, and the raising of plants in greenhouses. In England, where tomatoes are a very uncertain crop in the open air, culture under glass is the main crop, and it is difficult to get a good stand of clover on sandy lands, and it is a question if we can keep up the fertility of the soil by green manure.

Are you sure that the trees you are going to plant are of the varieties ordered? When you buy of the grocer a quantity of white sugar and he sends you brown, he is compelled to make the transaction satisfactory.

There are old orchards and young trees coming into bearing in California that are anything but what the disengaged owners wanted or ordered. By the propagation upon him of a fraud of some kind, he has spent hundreds and perhaps thousands of dollars and unlimited hopes upon an orchard that is, wholly or in part, worthless for the intended purposes. Such frauds come about in several ways; sometimes the nurseryman, intentionally or otherwise, neglects to knock out the budded or grafted stumps that do not take.

Suckers come up and grow in the place of buds or grafts. The trees are all counted in, and should it be a bad stand, the purchasing orchardist suffers no inconsiderable loss.

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to lift the trees and the varieties become mixed or wrongly labeled.

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This class of buyers are always blaming their luck, but never fail to bite at every bait.

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representing reliable nurseries, but of this you should assure yourself before listening to their often times misleading eloquence.

A nurseryman selling you trees, direct or through an agent, that are not true to name, thereby causing you pecuniary loss and disappointment, should be made liable for resulting damages; but, as the law now stands, the surest means of protecting yourself is to require a written guarantee that the trees are correctly named.—*California Fruit-Grower.*

I had no trouble in finding sale for them in any quantity, about this time of year and later, at double the price realized for the Bartlets. The Beurre Easters were very poor bearers with me and I cannot recommend the planting of them in my locality. This is one of the best and most profitable grown in California. The Winter Nellis is perhaps the best winter pear we have, but I have never grown them, therefore have had no experience with them. The late Jeremiah H. Pearce, near Dayton, had quite a number of trees of this variety. He praised them when shown at our society meeting.

Preparing for an Orchard.

The planting of an orchard should be calculated upon as carefully as the placing of any other business investment, for it is nothing more nor less than a contract with nature to assist you in making money. It is a clear case of "we," and the better the understanding and willingness on the part of both, the greater is the chance of success.

We have used the salt from hides, and aside from the blood and other things mixed with it is of little use. We put six tons of ashes to the acre but could see but little good in three years.

We must have some fertilizer for our older trees and I think good barnyard manure fills the bill; but we cannot get enough of it.

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It is the best we have.

Rye is not first-class, and I cannot see much good effect from plowing it under.

Underdraining I think is a great help.

Curculio is a pest.

It is a blight to the orchard.

MICHIGAN FARMER,

—AND—

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CHANGE OF ADDRESS.

Subscribers wishing the address of the *FARMER* changed must give us the name of the Postoffice to which the paper is now being sent, as well as the one they wish to have it sent to. In writing for a change of address all that is necessary to say is: Change the address on *MICHIGAN FARMER* from — Postoffice to — Postoffice. Sign your name in full.



DETROIT, SATURDAY, JAN. 25, 1890.

This Paper is Entered at the Detroit Post-office as second class matter.

The estimated receipts of foreign and home-grown wheat in the English markets during the week ending January 11 were 12,640 bu. more than the estimated consumption; and for the eight weeks ending Dec. 28 the receipts are estimated to have been 7,008,008 bu. more than the consumption. The receipts show an increase for those eight weeks of 6,043,264 bu. as compared with the corresponding eight weeks in 1888.

Shipments of wheat from India for the week ending Jan. 11, 1890, as per special cable to the New York Produce Exchange, aggregated 780,000 bu., or which 560,000 bu. were for the United Kingdom and 220,000 bu. for the Continent. The shipments for the previous week, as cabled, amounted to 600,000 bu., of which 300,000 went to the United Kingdom, and 300,000 to the Continent. The shipments from that country from April 1, the beginning of the crop year, to Jan. 11, aggregate 22,400,000 bu., of which 15,780,000 bu. went to the United Kingdom, and 6,660,000 bu. to the Continent.

For the corresponding period in 1888 the shipments were 29,640,000 bu. The wheat on passage from India Dec. 31 was estimated at 3,168,000 bu. One year ago the quantity was 2,244,000 bu.

The Liverpool market on Friday was quoted with fair demand. Quotations for American wheat were as follows: No. 2 winter, 7s. 0d. per cental; No. 2 spring, 7s. 5d.; California No. 1, 7s. 4½d.

CORN AND OATS.

WHEAT.

The receipts of wheat in this market the past week amounted to 48,051 bu., against 63,055 bu. the previous week, and 39,779 bu. for the corresponding week in 1889. Shipments for the week were 20,572 bu., against 25,271 bu. the previous week, and 98,832 bu. for the corresponding week last year. The stocks of wheat now held in this city amount to 562,026 bu., against 552,818 bu. last week, and 825,154 bu. at the corresponding date in 1889. The visible supply of this grain on Jan. 18 was 33,540,631 bu., against 31,178,421 bu. the previous week, and 36,596,870 bu. for the corresponding week in 1889. This shows a decrease above the amount reported the previous week of 637,790 bushels. As compared with a year ago the visible supply shows a decrease of 4,056,239 bu.

The situation is yet a hard one for sellers; the market, although only slightly lower than a week ago, keeps depressed in tone and weak. The "bears" have had control of the market for two months, and have it yet. It will take something like an earthquake to compel them to let go, and their tactics are helped materially by the condition of business in all lines of trade. With a steady decrease in the "visible supply" and large exports of flour, it looks as if the markets would certainly harden, but so far the symptoms are the other way. White has retained its position of a week ago, but all grades of red, both spot and futures, are lower. Yesterday this market opened and closed quite dull, but with little trading. Chicago was lower yesterday on January and May futures, closing dull. At St. Louis the decline was 3½@4c, closing dull. At New York yesterday wheat declined about 3c on all deals. Cable dispatches reported quiet markets on the other side, with unchanged values. The feeling abroad is stronger than on this side of the Atlantic.

The following table exhibits the daily closing prices of spot wheat in this market from January 1st to January 24th inclusive:

No. 1 White.	No. 2 Red.	No. 3 Red.
Jan. 1.	79 4	81 4
2.	79 4	81 4
3.	79 4	81 4
4.	79 4	81 4
5.	79 4	81 4
6.	79 4	81 4
7.	79 4	81 4
8.	79 4	81 4
9.	79 4	81 4
10.	78	81 4
11.	78	81 4
12.	78	81 4
13.	78	81 4
14.	78	81 4
15.	78	81 4
16.	78	81 4
17.	78	81 4
18.	79	79 4
19.	79	79 4
20.	78	79 4
21.	78	79 4
22.	78	79 4
23.	78	79 4
24.	78	79 4

No. 2 white closed at 72c, No. 3 red at 65c, and rejected at 60c per bu.

The following is a record of the closing prices on the various deals in futures each day during the past week:

Jan.	Feb.	March	May
51.	81	81	81
52.	80 4	81 4	81 4
53.	80 4	81 4	81 4
54.	80 4	81 4	81 4
55.	80 4	81 4	81 4
56.	80 4	81 4	81 4
57.	80 4	81 4	81 4
58.	80 4	81 4	81 4
59.	80 4	81 4	81 4
60.	80 4	81 4	81 4
61.	80 4	81 4	81 4
62.	80 4	81 4	81 4
63.	80 4	81 4	81 4
64.	80 4	81 4	81 4
65.	80 4	81 4	81 4
66.	80 4	81 4	81 4
67.	80 4	81 4	81 4
68.	80 4	81 4	81 4
69.	80 4	81 4	81 4
70.	80 4	81 4	81 4
71.	80 4	81 4	81 4
72.	80 4	81 4	81 4
73.	80 4	81 4	81 4
74.	80 4	81 4	81 4
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The Rothschilds decline to float the new loan desired by the Russian government.

The Duke of Aosta, brother of Humbert, King of Italy, was buried at Turin on the 22nd.

The treaty between the United States and Germany on Samoaan affairs has been made public, and is quite satisfactory to our government.

Tunno Tib is said by a French explorer to be the actual master of Africa, having much more influence than the Sultan of Zanzibar.

Empress William will be 22 years old on the 27th. In consequence the court mourning for the recently deceased dowager-Emperor will be suspended for 24 hours.

Percherons for Sale.

Pure bred and high grade

STALLIONS AND MARES

of desirable ages, choice breeding, and individual excellence. The largest herd in this part of the State. A large number bred by the Duke of Alençon, 150 stallions and mares; also Dr. Marquis de Watier or 219 (783) and Marquis 548. Matched pairs a specialty. Also elegant pair of 600 lbs. weight, 16 hands, and 2½ years old. Several other stallions and geldings, two years old. Will sell together or singly. Prices very low. Come and see me or write for further information.

E. WOODWARD,
Paw Paw, Mich.

WANTED.

A partner with about \$5,000 to invest in a well established ranch in Nebraska.

E. M. MICHIGAN FARMER Office.

Situation Wanted

on a stock farm, by a married man, without children. Has had experience in handling cattle and horses. Address

G. L. care of MICHIGAN FARMER,
Detroit, Mich.

WANTED.

Percheron stallions—imported or home bred. Low down with lots of bone and action; color, black; weight, 19 to 20 hundred. Would also buy a few gold mares. Stock raised by farmers preferred.

H. H. CHILDS,
Rockford, Mich.

FOR SALE.

TEN CHOICE REGISTERED

HOLSTEIN COWS.

Will sell cheap for cash or approved paper. Correspondence will receive prompt attention.

E. M. LEWIS,
RAISINVILLE, Mich.

FOR SALE,

SHORTHORN BULLS.

Sold by Lord Kingleyton of Erie 4482 15 to 18 months old. These are fine individuals and will be sold cheap.

JOHN P. SANBORN,
Port Huron, Mich.

YOUNG STOCK for SALE OF BOTH SEXES.

Pairs not skin can be furnished. Also some choice young sons for sale; bred to fair in April. Stock all from the most popular families, and prices very reasonable. Address

A. A. WOOD,
SALINE, MICH.

A Choice Registered Black Percheron Stallion

For Sale at a Reasonable Price.

Coming three years old, with style action and sound, without blemish, weight now about 1,600 lbs. Sire and dam both prize winners and owned by us. Also a fine virgin coach-style grade Percheron, 16 hands, 2½ years old. Inspection invited. Correspondence will receive prompt attention.

PARSONS & BALDWIN,
Waterloo, Mich.

Black Meadow Farm, ROYAL OAK, MICH.,

STANDARD-BRED TROTTERS, BATES-BRED SHORTHORNS, BERKSHIRE FIGS!

The high-bred trotting stallion Teusa Grondine 5001, will make the season of 1890 at Black Meadow for \$500 by the season, without return privileges. Teusa Grondine was sired by Sparucus 1913, dam Juba by Bell 641 (1878). The sire of Bell 641 was by Marmurio Ch. II, 11, (starus ex Alio) 33; dam Queen Lizzie (dam of Ormonde, 2716). The dam of Teusa Grondine was sired by 7th Duke of Leicester 55478, dam Waterlo 50th by Duke of Bruce 55478, dam Waterlo 43rd by Duke of Clarence 36188, etc. Address

F. A. BAKER,
69 Bush Block, Detroit, Mich.

A Chance to Secure a Prize!

Exile of St. Lambert 12.

A magnificent son of the Great Exile of St. Lambert.

Dam Pansy Littlefield, 18 lbs. 14 oz. in seven days. Color, light lemon fawn; dropped Jan'y 26th, 1887. Will be sold cheap or will exchange for registered Berkshire swine. Address

WILLIAM H. ELLIOTT,
Detroit, Mich.

HEREFORDS!

I have a few choice young

Bulls and Heifers for Sale

OF FINE BREEDING.

Prices reasonable. Catalogue furnished on application. Call upon or address

WM. STEELE,
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Shorthorn Bulls For Sale

Sold by Prud'Homme Duke of Fairview 37930, and Lord Berlington Hillhurst 62631, out of Fanny Mary, Phyllis, Lady Elizabeth, Peri Duchesses and Rose of Sharon cows. Also a few cows and half-bred sows, all from the best strains and for distribution. WM. CURTIS & SONS, Addison, Lenawee Co., Mich. Addison is on the new Michigan and Ohio Railroad. Farms connected with State Railroads.

For Sale Very Cheap.

One seven-eights Percheron stallion, six years old, sired by Woodward's Duke, dam by More, grand dam by a pure-bred Percheron. Can show some good stock from him. Also a number of good horses. Address

E. E. DARLING,
Paw Paw, Mich.



PERCHERON HORSES AT BARGAINS!

We mean exactly what we say. We have 146 Head Imported and Pure Bred Stallions and Mares, 6 French Coach Stallions, 36 Head of Grade Stallions and Mares, 20 Shetland and Exmoor Ponies, and 27 Head Registered Shorthorn cattle, most of which are disposed of during this season. Many others have been sold, and many more to come. If you desire to know what we want for your Catalogues and Prices, and we will convince you that it will pay well to buy of us.

Island Home Stock Farm. SAVAGE & FARNUM, Detroit, Mich.



T. W. PALMER'S LOG CABIN STOCK FARM!

150 PERCHERONS.
100 JERSEYS.

To be Disposed of this Season.
For catalogues and particulars address

4 MERRILL BLOCK, Detroit, Mich.



FOR FIVE SUCCESSIVE YEARS

Galbraith Bros.' Horses

have taken the leading position at cattle shows, winning first premium at the State Fair of Ohio, 1888, 1889, 1890, 1891, and 1892, and first premium at the first prize ever offered to English Shire Stallions two years old and over. This year we will offer 150 stallions, 100 geldings, and 50 mares, and 100 foals, and many other importers in America. 150 trusted stallions now on hand for sale in terms especially. Also stable, pasture, and farm buildings, and dairy premises, no importers can compete with us in price—our buying advantages alone. Numerous stallions and geldings, all others, stallions, mares, and foals, English Shires and Clydesdales especially, no have also a few choice Suffolk Punches and Cleveland Horses. Send for new page catalogues.

W. E. BOYDEN.

SPRINGBROOK FARM DELI MILLS, MICH.

DIRECTORY OF Michigan Breeders

AND —

SHORTHORN CATTLE

MERINO SHEEP!

The Shorthorn herd on this farm was never in better shape than at present.

Lord Hilpa 63417 and Imp. Barrington Barrington.

AT HEAD OF HERD!

Several Choice Young Bulls for Sale,

Ready for service this spring.

ALSO A FEW CHOICE FEMALES.

MERINO SHEEP.

Flock of over one hundred breeding ewes, yearlings and lambs of both sexes for sale.

EW. Visitors always welcome. If you cannot come and look over the stock write for particulars. Address

W. E. BOYDEN.

SELECT HERD

Bates Cattle!

AT —

HAZEL RIDGE FARM,

SANDWICH, ONT.

The herd consists of

Duchess, Oxford, Thorndale Rose, Barrington, Kirklevington, Wild Eyes and Red Rose Families.

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HAZEL RIDGE FARM,

SANDWICH, ONT.

Poetry.

THE DAUGHTERS OF THE YEAR.

With interlocking hands they make
A circle round our sphere,
And there they are in ceaseless dance,
Be days or glad or drear;
Twelve sisters are they, wondrous fair—
The daughters of the year.

The first, of dazzling loveliness,
Is of a queenly mien;

Her scintillating, spindled eyes

No love-lights seem to hold;

The sunshine, when it falls on her,

Glistens from her bosom cold.

The second, of a gentler mien;

Seems by compassion stirred;

Bright daffodils spring round her path;

When light her step is heard;

And ever, with reproachful glance,

She would restrain the third,

Who still with bairnapping robes,

Outwears flying hair;

Heeds not the soft detaining hand;

Her laughter fills the air;

Until the wildness of her sport

Wakes echoes everywhere.

Then cometh she, sweet April-maid,

With smiles upon her lips;

While willful tears drop in her eyes

Hold cloister in eclipse;

About her slender form her hair

Like waving sunlight slips.

And after her trots May-day's queen,

Neath bending boughs of bloom;

No wilder flower is half so fresh;

Deep in the forest gloom,

As is the primrose, in her cheek,

Her light breath's sweet perfume.

Linked hand in hand with her appears,

In gleaming robe and snood,

A radiant form—a maiden bud

New-blown to womanhood;

And rose-aches shower about her head,

Flowers spring up where she stood.

He who should kiss the next who comes

Would kiss and never tire,

The warm breath of her glowing lips;

Endinkles new desire;

And scarlet poppies, dreamy-eyed,

Burn on her breast like fire.

Then followeth with slower tread

That琅琅的 Queen,

Who wears the dog-star on her brow;

It seems they might have been

Such arms as hers, beside the Nile,

The Roman lay between.

Slow after her a woman pise

Walks over wistful-eyed.

As though some secret sorrowing

Her smiling lips would hide.

So plaintive are they in their smile,

So fair is she beside.

Then cometh she through whose brown cheeks.

The rich blood shineth red;

The stain of wine is on her mouth;

She moves with joyous tread;

And by a crown of Autumn leaves

Her hair is gilded.

Then, robed in russet shot w't sun,

A stately woman strays;

To look upon her is to dream

Of Indian summer days,

For by the purr, of her eyes

The world is wrapped in haze.

And last of all with ringing laugh,

In ho'ly ray bedight,

Comes she whose crown of mistletoe

Doas saucily invite

To ravish from her perfect month

A moment's keen delight.

Thus wheel the daughters of the year

The gray old world around,

Inviting him a blade to choose,

When he his mind has found;

And he, as qu're to bewilder, turns

To loveliness entwined.

Ah, who could dare a choice to make

Held in so gay a thrill!

And he (this in your ear), he's sly,

This hoary cosmic ball,

And, like some grim old amorous Turk,

By silence chooses all.

—Charles Washington Coleman.

Miscellaneous.

HOW GRANDMOTHER KEPT HER HOME.

Grandmother Smith was a very remarkable woman, to be sure, but everybody thought it very foolish for her to insist on keeping her old home.

Grandfather Smith had gone on to make a new home in the Undiscovered Country, to which we are all emigrating, and all the children were married except "Babe," and settled in homes of their own—one in Boston, one in Jersey City, and one at the junction, a noisy little railroad centre, thirty miles distant from the Smith farm.

And now Babe herself—whose real name was Frederick Arthur, and who could reasonably be called Baby no longer, was about to marry and join an enthusiastic colony for southern Kansas.

The question among children and grandchildren who had come home for the wedding, was, "Now, what will be the best thing for mother to do?"

Prompt answers arose on all sides. William, of Boston, whose wife had an uncertain temperament, said: "Mother, you must sell the farm of course, and take a suite of rooms near us. I would like to have you live with us, but Annie's health is so delicate, and she already has so many cares and so—"

Mary, of Jersey City, said: "Mother, I want you to live with me. That spare chamber of mine, with east and south windows, and a big clothes-press, I've always hoped you'd come and occupy some day. There's a nice, cheerful view toward the east, and we're lively family, and you wouldn't be lonesome. The children would enjoy having grandma in the house, wouldn't you, dear?" and the dears responded in a joyous chorus of affirmatives.

Daniel, of the Junction, said that the sensible thing was for mother to stay with him. The Junction was near her old home. She could sometimes visit her old neighbors and have them visit her. It wouldn't be such a big break up for her. And she would be a blessing to the twins, who were always ailing.

Babe, of the Colony, was the most enthusiastic and tenacious of all. The climate of Kansas—so mild and genial—was what mother needed most of. With the money the farm would bring, she could buy an immense ranch in that beautiful region, and enjoy a serene and wealthy old age after all this slow grubbing (the spoke with scornful emphasis) among the Hampshire hills. Mother must really go with him to Kansas. It was her regular manifest destiny. And

he needed her. No matter how delightful everything might be, it wasn't going to seem exactly like home to him unless mother was somewhere around.

The old lady smiled tenderly on all these suggestions. Very gently she declined the suite of rooms in Boston. Gratefully she waived the pleasant southeast chamber in Jersey City, and she laid her hand on Babe's shoulder with a wistful caress when she said "no" to his glittering proposal. She was mild, but, like her own granite rocks, and firm "set."

"The place that Jonathan lived and died in is a good enough place for me," she said over and over again, during that day of besieging, "and it is possible some of you may want the old home to run to sometime."

"But, mother!" and then would come an answering volley of objections and remonstrances, rattling like small and ineffectual shots against the rock of her resolution.

"Children, I am not helpless," she laughed. "I can't do very hard work any more, but I guess I've got head enough left to oversee these old acres awhile longer. I can't bear to think of strangers in this house. I'd have liked one of you to stay with me" and here the brave voice faltered a little—"but the Lord has arranged things otherwise, and I'll just stay where's He's left me."

S, after the wedding, the children went their different ways, and Grandmother Smith was left alone. Alone? Ab, not alone! The old house was peopled with a world of memories and tender associations that crowded about her all the closer for the silence and the solitude.

All the stock except a gentle young cow, a dozen hens, and Bruce, the shepherd dog, had been disposed of, and the proceeds given to Babe for her Kansas start. The great pasture was let to a neighboring dairyman. The wood lot kindly promised to take care of itself. A garden, containing a few apple and cherry trees, and rows of currants and beds of sage and balm, Grandmother Smith reserved for her own needs. A pleasant bit of meadow, with a brook running through it, was fenced off for "C'onf'or," the cow. The remaining acres grandmother caused to be sown with timothy and clover. The hay was harvested on shares by Mr. Dairyman, and the hay money paid taxes, covered small repairs, and more than met the modest accounts at the country store. With the money from little Comfort's sweet sweater, and from the eggs of the twelve industrious hens, grandmother paid the small chores, who came every night and morning to fill the wood-boxes and attend to the cow, subscribed to her standard newspapers, dropped her unfailing bit of silver into the church plate, and bought great quantities of red yarn, which, about Christmas time, flew east and west, north and south through the distracted mail bags, in the shape of stockings and mittens and wristers for her children and grandchildren.

Among the many objections the children had made to mother's plan, was the positive certainty that she would starve herself to death. They would have been both pleased and comforted to see her seated at her little elaborate dinners, the cloth just as white, and the little worn silver spoons just as bright as if company were present, and always some favorite dish of Jonathan's—or something that the children used to like—waiting before her, on a very small scale, to be sure, while she said aloud her brief and simple thing.

Neighbors came often to see her. At first they came to pity and console, but, when they saw the cheerful and busy peace and quiet independence of her existence, they grew to consider condolence as yet out of place.

Sometimes some dismal, but well-meaning, human crowd would perch beside her and croak:

"Deary me! what will you do if you get sick? There's pleurisy now, and numony, and inflammatory rheumatism, and shocks—all dreadfully sudden and likely to come on in the night! You hadn't ought to be livin' alone here! You ought to have—"

But Grandmother Smith cried a little over this letter. She must really nerve herself to go. Mary was giving herself so much trouble it would be selfish to disappoint her this time. And yet—it was the beginning of the end! At last she must give up her home.

Mary, bustling and resolute, arrived in due time. The gown fitted nicely, and the soft frilled cloak and rich black bonnet transformed Grandmother Smith into quite a stylish dame.

The astonished hens were at once transferred to the Willets' and Bruce—already suspicious of foul play—was to be coaxed to the dairyman's after the departure should effect. The old house was to be well fastened up and left to itself.

Everything was in readiness for the next day's leave-taking, except a little packing which Grandmother wished to attend to. Daughter Mary, weary of her journey and other exertions, went to bed at an early hour, resolved to rise at first hint of day.

And now a feeling of great depression came over Grandmother Smith. How could she leave the dear old house, now so warm and bright, to its chilly days and long lonely nights? How would the old clock feel when it should find itself run down in the cold, silent kitchen after all these years? What would faithful Bruce think of his cruel desertion? And what if the dairyman should ever kick him? And Jonathan—if he did sometimes draw near his old home in the twilight, as she dreamed he did, wouldn't he feel hurt to find her empty chair and the dead fire? Would he understand that she hated to go away?

Ab, yes; she was a foolish old woman but these thoughts would come. She walked about the kitchen, moving a little the things that were already in place. She laid her hand caressingly on the glossy side of the iron tea kettle that had almost sung itself to sleep. She patted the heads of the pink and chrysanthemums, and whispered them good-bye. She gave old Bruce something very choicer from the pantry, and gently sent him out to his kennel in the woodshed. From the partly open door of the bed room came a good, sound, comfortable snore, "Poor child," sighed Grandmother Smith, "I am glad she can sleep—she don't know how hard it is—and then she sank down into her rocking chair and cried—cried—softly as possible, and yet the grief of the old house was to be.

Thus several years passed away, and Grandmother Smith was nearing her eightieth birthday. William, of Boston, after a brief visit to her, wrote stirring letters to all the members of the family, declaring that mother was failing very fast and that something must done.

That Thanksgiving all the children came home, except Annie—whose nerves were particularly bad, and Babe—who, to tell the truth, had no money for the journey.

Yes, all could see that the dear old hands trembled a little, and that a pathetic quiver affected the old eyes. The children would have been greatly distressed to see the old woman in such a condition.

"Bruce—Bruce—is it Bruce, you old rascal! Have you got all this live in you yet? Why, Bruce, don't you know your old friend, love, hoy?"

That voice—it was Babe's! Babe's voice, although disguised by cold weather and a stray tear or two over the dog's forgetfulness, electrified Grandmother Smith. She got up quickly and walked to the door as softly as a woman of forty.

"Babe!" she cried, peering out into the darkness.

"Yes, mother, here I am, and Jenny and the baby."

"The Deans are expecting city company to lunch," said Maud. "They're at to borrow the butterfly china plates this morning."

she, and begged the neighbors to watch over mother and send a telegram in case of any symptoms of illness.

Grandmother Smith now wisely reduced her cares of living to their lowest terms. She had Betsey Willet put the parlor and children's room in perfect order, and then she turned the key on them. The spacious kitchen and her own bedroom constituted her winter domain, and these rooms she kept clean and sweet-aired without hard labor. She reluctantly sold little Comfort and some of her promising descendants—which she had been keeping with a vague hope that Babe might come back and want a fine cow or two—put the money in the bottom of her bonnet box, and bought her daily pint of milk and daily pat of butter of her neighbor, the dairyman. She still felt equal to her family of hens, and made it one of her daily recreations to sweep and sweeten their little habitation, and was particular about their food and drink and sandwich and sunlight and ventilation. In her kitchen windows she cultivated some clove pink, chrysanthemums and monthly roses. In the morning she had housework, which was thoroughly and beautifully done, and in the afternoon her little walk to the post office for the possible and often actual letter; or she called upon a neighbor and talked about old days. After her sunset cup of tea he loved to sit in the twilight with her knitting in her hands and sheepdog Bruce lying beside her, to "visit" with Jonathan and the children, as she hurriedly dressed.

In the underdrawers of her bureau was a set of plain and beautifully white underware, her black silk gown nicely folded, a kerchief of pillow-white silk—one of Jonathan's early gifts—and a fresh lace cap with tiny loops of lavender ribbon set in the ruching. Among these lay little bags of rose and balm leaves. A folded paper was pinned to the breast of the gown, in which was written, "Emily Hewitt in 'Good Cheer.'"

On the 21st of December, 1861, Mrs. Milner

came back to stay, mother, if you want me. I've been cleaned out by a twister—a cyclone, you know—but just enough to make the Junction and buy a team there, and now old Hampshire is good enough for me—if you're willing I should stay, mother!"

"Oh, Babe, I've sent you! I'm so glad, Babe!" Then she left off hugging the big, sad-eyed fellow, and fell upon Jenny and the baby. Then she trotted to the stove and stirred the smoldering fire under the sleepy tea-kettle. Please God, the dear old tea-kettle should yet continue its peaceful anthem—the clock shouldn't run down—Bruce shouldn't be kicked—the hens should come back.

And all the while swift tears, now happy and refreshing ones, rained down over her face.

"Why—what?"

"Hello, Mary!" called out Babe in his eyes.

